

Specification for Approval

Anker PN	: A17E1-WIFI antenna
Vendor's PN	: ATC1486-HY094B70RA
Approval Date	: 2025.07.08

Vendor' s Approv ed by	PMVendor PM	AnkerRD signatur e	AnkerSQE Signatu re

SPECIFICATION FOR APPROVAL

DESCRIBE: Anker Innovations Co., LTD (A17E1)

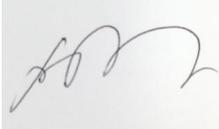
Customer NO: _____

PART NO: ATC1486-HY094B70RA

Antenna type: WIFI-Ant plastic +Cable(Black)

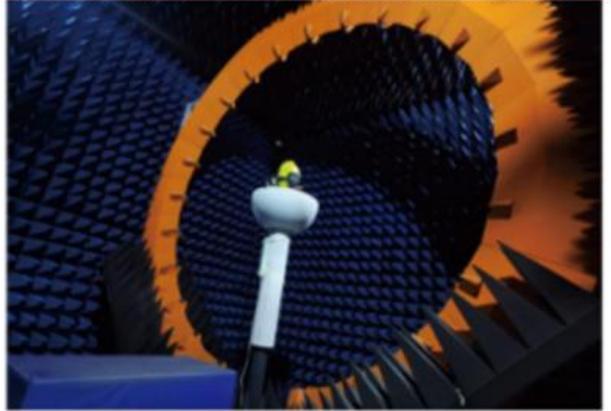
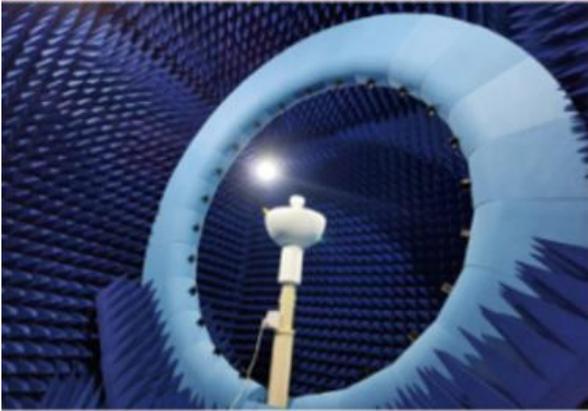
DATE: 2025.07.08

PROVIDER: AT&C Technology (Shenzhen) Co.
201, Building C, Chuangwei Innovation Valley, No.1 Tangtou Road,
Shiyan Street, Bao'an District, Shenzhen, China

		ID Department	Test department	Structure section	Quality department
Customer Admit	confirm				
Supplier Admit	confirm	confirm	Proofreading	To examine	Approval
		ziyehui	mo zhenwen	Xuliyang	

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- 二、 Test equipment
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We have RF equipments as below

Anechoic Chambe

- Satimo 1ea
- SY24 1ea
- SAR 1ea
- KSS 2ea

Measurement

- 2G, 3G, 4G
- GPS
- Wifi
- Bluetooth(3.0) OTA
- NFC & WPC



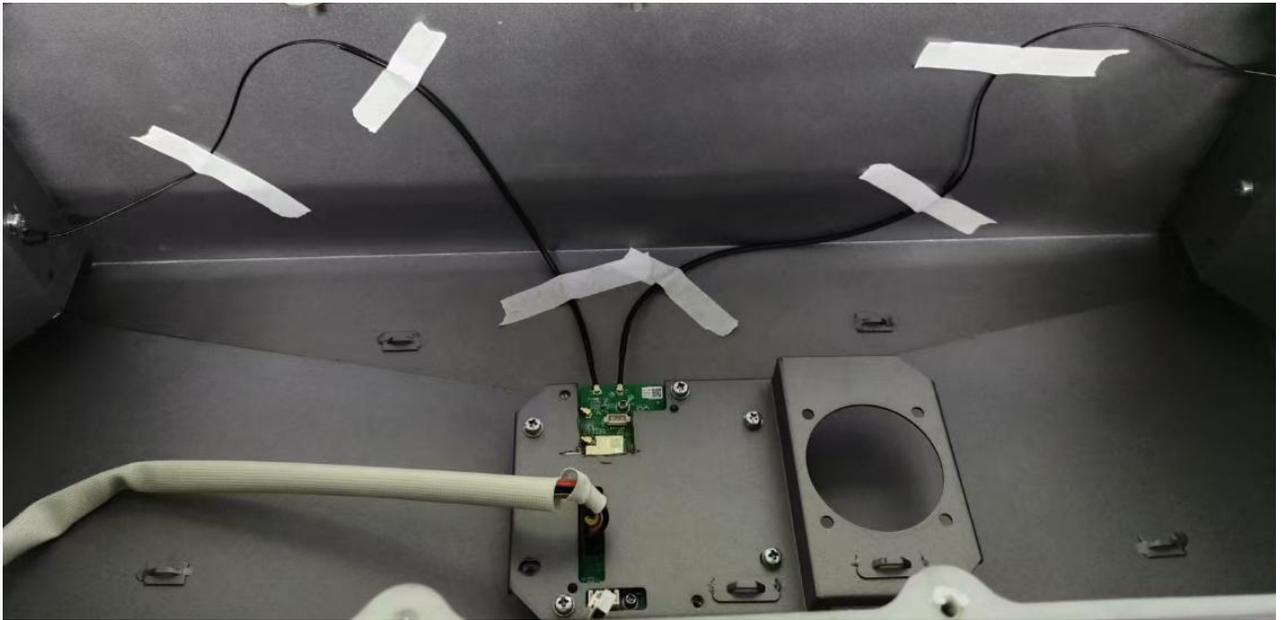
BOM

Customer	Anker	Written By	ZYH	Orig. Date	2025.07.08
Part Number	ATC1486-HY094B70RA	Revised By	SHIN	Revised Date	2025.07.08
Description	WIFI ANT	Approved By	HJ	Approved Date	2025.07.08

Customer number	ATC number	Part name
	ATC1486-HY094B70RA	Shell: SABER PCEXL9330 black, 148 * 20.5 * 28mm; black coaxial 1.13 low loss wire, equipped with first generation terminals, total length 510mm

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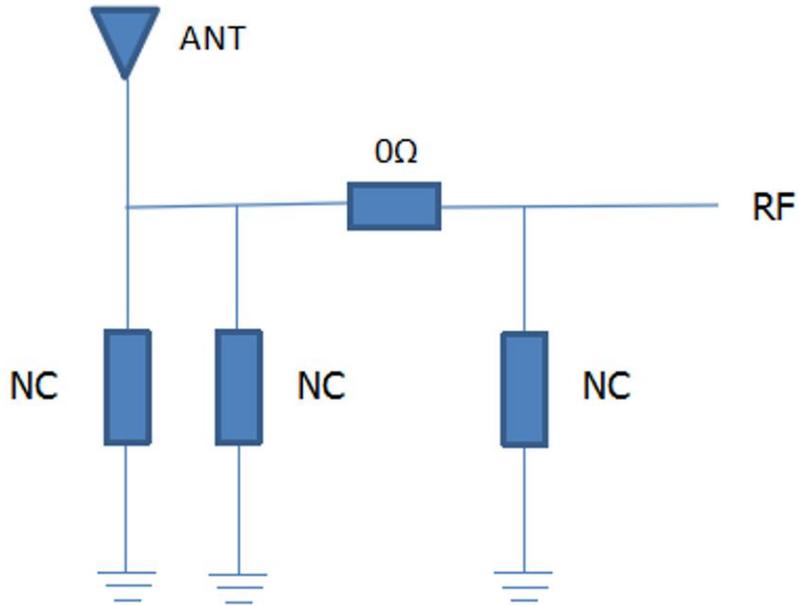
1. The cable cycloid is shown in the following diagram.



Impedance Matching

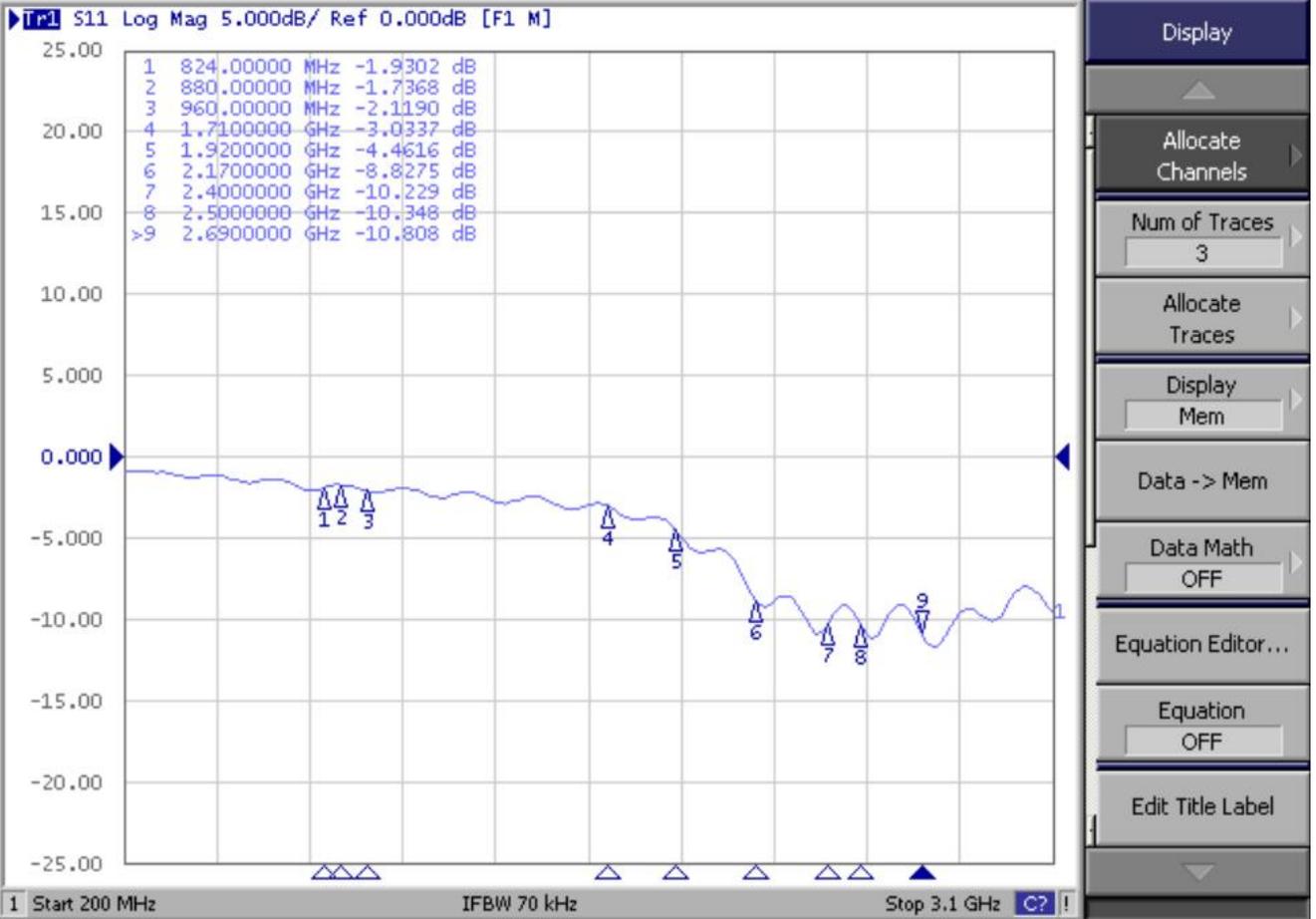
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1. No changes made



Customer	Anker	Written By	ZYH	Orig. Date	2025.07.08
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1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State





Antenna *Efficiency

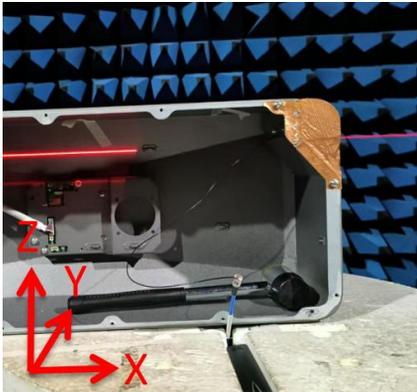
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(2.4G) Passive Test Results

Frequency (MHz)	Efficiency (%)	Efficiency (dB)	Max Gain (dBi)
2400	54.83%	-2.61	3.89
2410	54.74%	-2.62	3.91
2420	54.16%	-2.66	3.94
2430	52.79%	-2.77	4.02
2440	50.56%	-2.96	4.09
2450	50.56%	-2.96	3.98
2460	50.93%	-2.93	3.95
2470	51.27%	-2.90	3.94
2480	51.79%	-2.86	3.78
2490	52.56%	-2.79	3.66
2500	51.54%	-2.88	3.56
AVG:	52.34%	-2.81	3.88

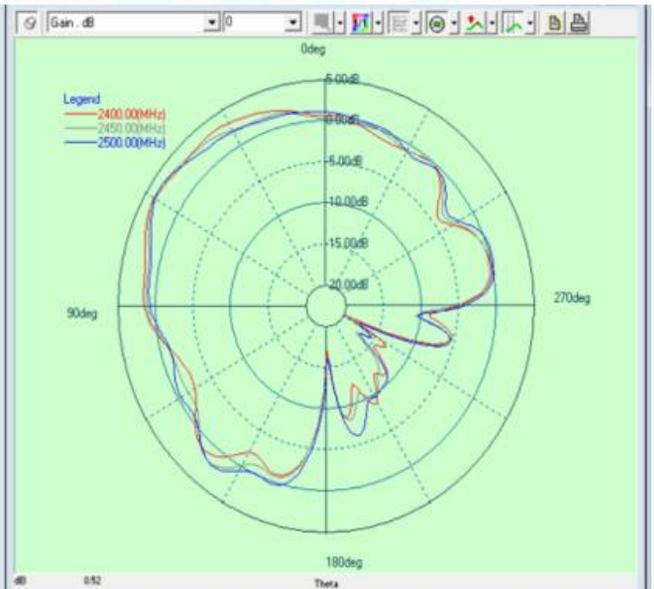
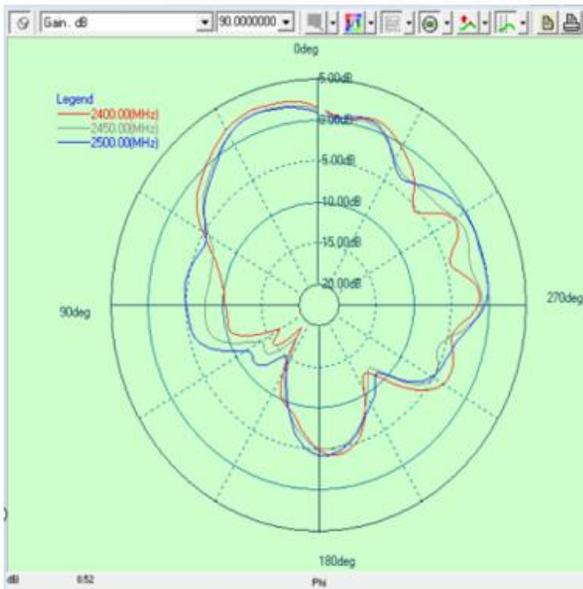
2D Radiation Pattern

Customer	Anker	Written By	ZYH	Orig. Date	2025.07.08
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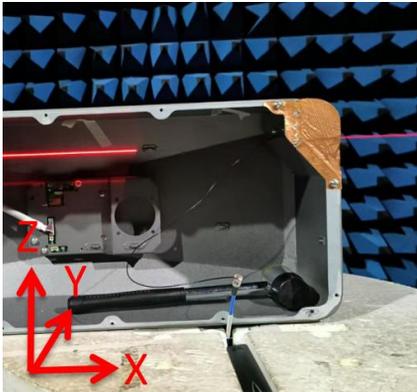


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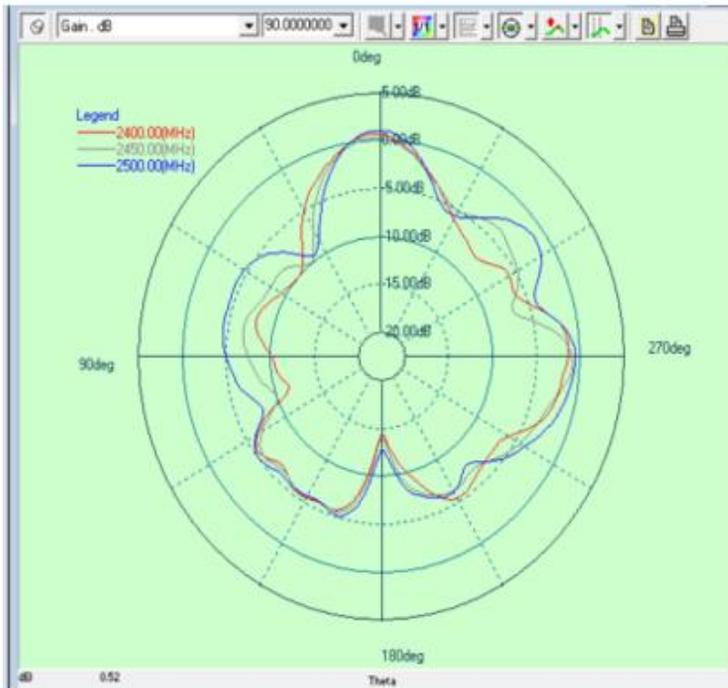
E1



Customer	Anker	Written By	ZYH	Orig. Date	2025.07.08
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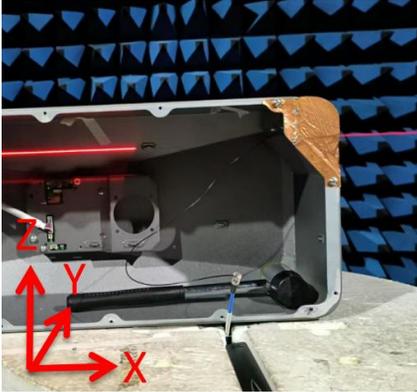


E2

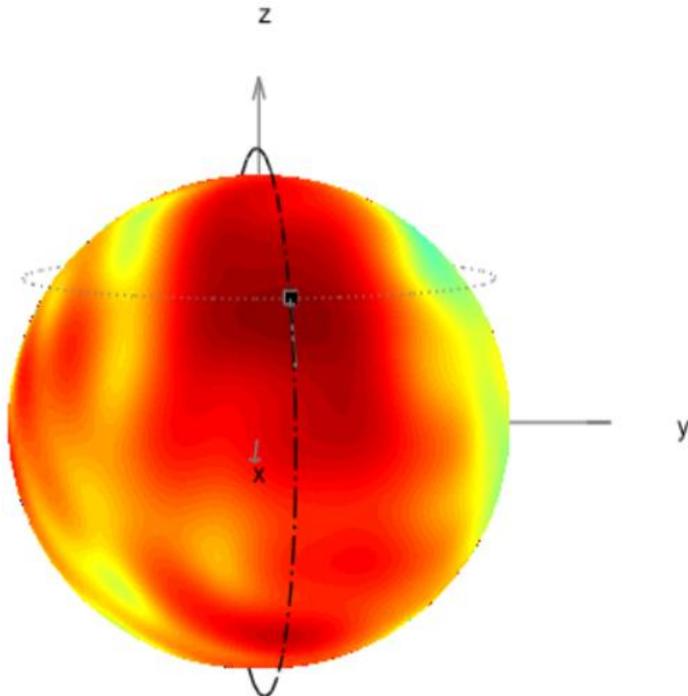


3D Radiation Pattern

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Part Number	ATC1486-HY094B70RA	Revised By	SHIN	Revised Date	2025.07.08
Description	WIFI ANT	Approved By	HJ	Approved Date	2025.07.08

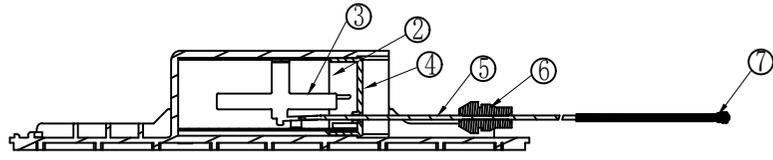
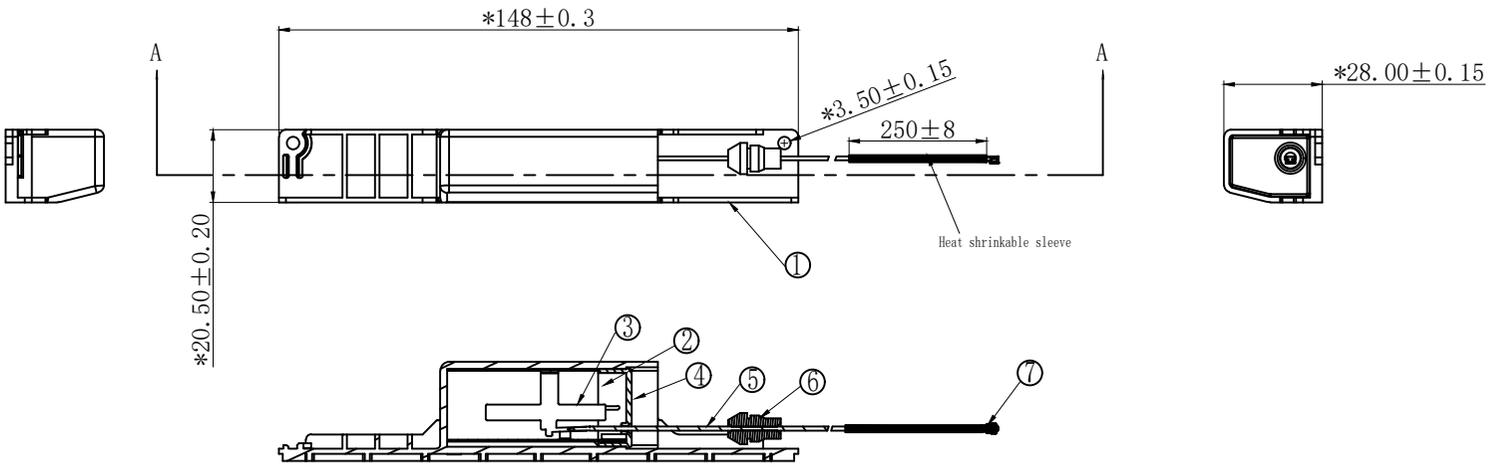


2450MHz

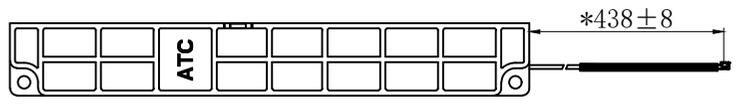


1 2 3 4 5 6 7 8 9 10 11 12 13

SEQ No.	REV	DATE	DESCRIPTION OF CHANGE	DRAWN	CHECKED	APPROVED
1						



section A-A



7	connector	MHF-1
6	Silicone stopper	Silicone black
5	coaxial cable	Low loss 1.13
4	sealant	Modified silicone black
3	ANT	Stainless steel SUS304 nickel plating
2	Fixed plug	sabicPCEXL9330 Black
1	casing	sabicPCEXL9330 Black
NO	Name	specifications

Proto Size A4(263X198)
(10.0mm)

- Technical requirements:
- The dimensions marked with "*" in the figure are key control dimensions;
 - The coaxial line needs to be welded firmly, and the welding points should not have problems such as virtual welding, leakage welding, short circuit, etc.;
 - The surface of the wire is not damaged,
 - When packaging, PE bags should be placed neatly and the products should not be squeezed during transportation;
 - Without confirmation from ATC company, materials cannot be changed arbitrarily, and the product meets ROHS and halogen-free requirements

X	±0.5	3rd ANGLE PROJECTION			AT&C Co., LTD.(Shenzhen)		
.X	±0.25				PART NAME		A17E1
.XX	±0.10				MODEL NAME		ANT ASM
.XXX	±0.05				DRAWING NUMBER		ATC1486-HY094B70RA
CHECKED BY		SIZE		DRAWING DATE		2025.06.18	
DRAWN BY		UNITS	mm	REV.		A	
APPROVED BY		SCALE	1:1				

ATNC-S-01-A4

A4(297X210)



Full Size Test Report

Customer	Anker	Written By	ZYH	Orig. Date	2025.07.08
Part Number	ATC1486-HY094B70RA	Revised By	SHIN	Revised Date	2025.07.08
Description	WIFI ANT	Approved By	HJ	Approved Date	2025.07.08

Size information					Measuring sample			% Tolerance		Handling opinions			
number	Dimension property	Dimension	Lower tolerance	Upper tolerance	1	2	3	Upper	Lower	determine	Supplier review comments	Customer review comments	Measuring tool
1	key point	148	-0.3	0.3	147.85	147.9	147.8			PASS			PJ
2	key point	20.5	-0.2	0.2	20.45	20.48	20.5			PASS			PJ
3	key point	28	-0.15	0.15	28	20.79	28.01			PASS			PJ
4	key point	438	-8	8	436	437	436			PASS			PJ



CPK Report

Part Number	ATC1486-HY094B70RA		Vendor	ATC	
Description	A17E1 AMT ASM		Inspected		
Tool Number			Inches/MM	MM	
Cavity			Material Nam		
			Material Code		
Revision	RA		Date	2025-06-15	
Dim. Designator	1	2	3	4	5
Nominal	148.00	20.50	28.00		
+ Tolerance	0.30	0.20	0.15		
- Tolerance	-0.30	-0.20	-0.15		
Upper Limit	148.30	20.70	28.15		
Lower Limit	147.70	20.30	27.85		
1	148.03	20.52	28.02		
2	148.12	20.58	28.06		
3	147.94	20.46	27.97		
4	148.06	20.54	28.03		
5	147.97	20.48	27.99		
6	148.06	20.54	28.03		
7	148.12	20.58	28.06		
8	147.88	20.42	27.94		
9	148.06	20.54	28.03		
10	148.00	20.50	28.00		
11	147.97	20.48	27.99		
12	147.94	20.46	27.97		
13	147.91	20.44	27.96		
14	148.03	20.52	28.02		
15	148.06	20.54	28.03		
16	147.94	20.46	27.97		
17	148.06	20.54	28.03		
18	147.97	20.48	27.99		
19	148.06	20.54	28.03		
20	148.09	20.56	28.05		
21	147.88	20.42	27.94		
22	148.06	20.54	28.03		
23	148.00	20.50	28.00		
24	147.97	20.48	27.99		
25	147.94	20.46	27.97		
26	147.91	20.44	27.96		
27	147.91	20.44	27.96		
28	148.06	20.54	28.03		
29	148.00	20.50	28.00		
30	147.97	20.48	27.99		
31	147.94	20.50	27.97		
32	147.91	20.44	28.00		
MAX.	148.12	20.50	28.06	0.00	0.00
MIN.	147.88	20.42	27.94	0.00	0.00
AVERAGE	147.99	20.50	28.00	#DIV/0!	#DIV/0!
STDEV	0.07	0.05	0.03	#DIV/0!	#DIV/0!
CP	1.44	1.45	1.47	#DIV/0!	#DIV/0!
Cpk	1.41	1.43	1.46	#DIV/0!	#DIV/0!
TOOLING(测量工具)	二次元	二次元	二次元	二次元	二次元

tabulation: Liang juan jiao approve: Pengguangliang



Salt spray test report

Customer Name	Anker (A17E1)	Specification and	ATC1486-HY094B70RA
Sample situation	Sample quantity: 3PCS		
	Substrate: PI		Coating: NI
Test start and end time	May 6, 2025 10:00 to May 8, 2025 10:00 48 hours		
Test type	<input checked="" type="checkbox"/> NSS	<input type="checkbox"/> ASS	<input type="checkbox"/> CASS
Test conditions	Salt solution ratio: 5% ± 1%		PH:6.5~7.2
	Temperature inside the box: 35 ° C		Relative humidity: 85% ± 2%
	Spray mode: <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent		Compressed air pressure: 1kg/cm ²
	Spray volume: 1.0 ~ 2.0ML/80CM2/H		Test object placement angle: 30 degrees+/-10 degrees
	Test cycle: __ cycles		Spray time: 48 h Placement time: 2 hours
Judgment criteria	Appearance: intact and undamaged, with no significant changes. Coating: No oxidation, rust, discoloration, or corrosion spots. Screen printing: No shedding or bubbles.		
Test results	Appearance after test: The appearance is intact and undamaged, with no significant changes. Coating: No peeling or rusting Surface spraying and screen printing: no peeling or bubbles.		
<p>Explanation:</p> <p>1. The salt spray test operation standard shall be executed in accordance with the national standard GB/T2423.1 7-2008 of the People's Republic of China</p> <p>2. The criteria for determining test specimen results shall be in accordance with the national standard GB/T6461-02 of the People's Republic of China</p>			
Tester: Zhang Luo		Reviewed by: Liang Houbo	

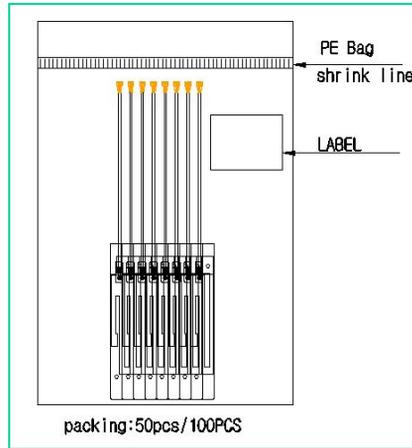


A17E1 Antenna Component Production Process Flow

No	Process Name	Using equipment, fixtures, and tooling	Inspection items	Control factor	Reference standards	Inspection frequency
1	Plastic shell incoming materials	Anime or caliper	critical dimension		Reference drawings	1
			Common appearance defects of plastic components		Refer to relevant inspection standards	1
			Material model, RoHS compliance		Reference drawings	Once
2	Incoming antenna shrapnel	Anime or caliper	critical dimension		Reference drawings	1
3	Silicone plug incoming material	Anime or caliper	critical dimension		Reference drawings	1
4	Same axis incoming material	Anime or caliper	critical dimension		Reference drawings	1
			Common appearance defects of coaxial components		Refer to relevant inspection standards	AQL0.65
			Wire head welding		Easy to weld, no oxidation, poor welding quality, etc	2
			Material model, RoHS compliance		Reference drawings	Once
5	Coaxial thread silicone plug	finger cot			No leakage is allowed, refer to the drawing	100% self inspection
6	Coaxial welded steel sheet	Soldering iron, tin wire	Soldering iron welding	welding temperature	320±10°C	100% self inspection
			Welding appearance		Do not short-circuit, solder, or burn the wire skin	100% self inspection
					No false welding or virtual welding allowed	100% self inspection
				Solder joints cannot have less solder, and more solder (solder joints are large)	100% self inspection	
7	Assembling the casing	finger cot			Reference drawings	100% self inspection
8	Dot silicone glue	Rubber bottle	Glue appearance		No leakage point, not dried up	100% self inspection
9	Network segmentation testing	network analyzer	Test waveform compliance	Network segmentation parameters	The waveform parameters of the product test are consistent with the set waveform parameters, and if "PASS" is displayed, it is considered qualified	100%
		Test fixture				
10	100% visual inspection	Carton, pallet, label, to be packaged finished product	appearance		Reference antenna inspection specifications	100%
	And packaging		Packaging quantity		Reference packaging guidance	100%
			Correct labeling		Correct product name, quantity, and related information	Once
11	OQC shipment inspection	Anime/caliper	Key dimensions and positional accuracy of the antenna		Refer to product drawings	Once
		3M adhesive	Coating thickness and adhesion report		Refer to product drawings and Phoebe antenna inspection specifications	Once
			Coaxial Pulling Force Test		Reference Product Pulling Force Test Standard	Once
			Salt spray test		Reference product salt spray testing standard	Monthly/time
			Antenna appearance, packaging, and labeling		Refer to Phoebe antenna inspection specifications	AQL0.65

Packaging method

PE bag packaging, product emission neat, uniform quantity



PART LIST

*The packaging diagram is a schematic diagram and does not represent the actual product

NO	DESCRIPTION	Q'TY	MATERIAL	REMARKS	REV.
1	ANTENNA	1/1000		N/A	A
2	PAD OUT	1/4	SW A콜 5T	N/A	A
4	CARTOON BOX	-	SW A콜 5T	N/A	A
5	PACKING TAPE	-	PP	N/A	A